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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,768	10/22/2003	Jacques Baudonnel	1759.140	5370

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ALBANY, NY 12203

EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/690,768

Applicant(s)

BAUDONNEL, JACQUES

Examiner

Andrew T. Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 9/27/2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The specification is completely silent regarding the claimed system for reinforcing a structure comprising two tapes that avoid contact with each other.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 6,228,312 to Boyce.

Regarding claims 1-3 and 6-9, Boyce discloses a reinforcing tape that includes a ply of longitudinal glass-based high-tenacity yarns bound together by weft yarns which tape includes two thermoplastic films each placed on a respective different side of the ply of high-tenacity yarns wherein the tape is flexible and the yarns provide reinforcement (see entire document including column 4, lines 27-45, column 5, line 46 through column 6, line 3, and column 6, lines 64-66). Boyce specifically discloses that the structure may be in the form of a tape (column 6, lines 35-40 and 64-66). Boyce specifically discloses that yarns may be glass-based (column 4, lines 27-45). Boyce specifically discloses that the yarns may be in a woven structure (warp yarns bound by weft yarns) (column 4, lines 27-36). Boyce specifically discloses that the tape may include two thermoplastic films placed on respective different sides of the ply of yarns (column 6, lines 1-3). Boyce specifically discloses that the tape is flexible (column 6, lines 4-9) and that the yarns provide reinforcement (column 4, lines 37-64).

In the event that it is shown that the applied prior art does not disclose the claimed embodiment with sufficient specificity, the invention is obvious because the prior art specifically discloses the claimed constituents.

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Regarding claims 2 and 6-7, Boyce discloses that the tape can be heated and calendered (column 6, lines 64-66), which would result in the thermoplastic films adhering to a respective side of the ply.

Regarding claim 3, Boyce discloses that the two thermoplastic films may be bonded together along the edges of the tape (column 7, lines 4-5).

Regarding claims 6-7, Boyce discloses that the longitudinal yarns may be bound together by at least partly thermoplastic weft yarns (column 4, lines 27-45).

Regarding claim 7, Boyce discloses that the thermoplastic material of the weft yarns and material of the films are similar (column 5, lines 46-67).

Regarding claim 8, Boyce discloses that the thermoplastic films avoid penetrating into the ply of yarns (Figures 5 and 6).

Regarding claim 9, Boyce discloses that two tapes may be overlapped (column 6, line 64 through column 7, line 13).

7. Claims 1-2, 5-7 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 02/22354 to Dana.

Regarding claims 1-2, 5-7 and 9, Dana discloses a reinforcing tape that includes a ply of longitudinal aramid-, carbon- or glass-based yarns bound together by weft yarns which tape includes two thermoplastic films each placed on a respective different side of the ply of high-tenacity yarns (see entire document including page 2, lines 32-35, page 6, lines 6-23, page 8, lines 28-30, page 17, lines 16-34 and Figures 2-3). Dana specifically discloses that the structure may be in the form of a tape (Figure 2). Dana specifically discloses that yarns may be glass, carbon, or aramid based (page 6, lines 6-27). Dana specifically discloses that the yarns may be

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in a woven structure (warp yarns bound by weft yarns) (Figure 2 and 3 and page 13, lines 10-20).

Dana specifically discloses that the tape may include two thermoplastic films placed on respective different sides of the ply of yarns (Figures 2 and 3 and page 17, lines 32-37).

In the event that it is shown that the applied prior art does not disclose the claimed embodiment with sufficient specificity, the invention is obvious because the prior art specifically discloses the claimed constituents.

Dana does not appear to specifically disclose that the tape is flexible, but considering that tape is identical to the claimed tape in terms of materials (aramid-, glass- or carbon-based high-tenacity yarns and thermoplastic films) and construction (woven fabric sandwiched between the films), it appears that the tape is inherently flexible.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 2 and 6-7, Dana discloses that each thermoplastic film may be adhered to a respective side of the ply (page 17, lines 16-34).

Regarding claim 5, Dana discloses that a UV stabilizer (inhibitor or absorber) may be added to the thermoplastic films (page 18, lines 18-21).

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Regarding claims 6-7, Dana discloses that the ply may comprise thermoplastic weft yarns (page 6, lines 6-27).

Regarding claim 7, Dana discloses the thermoplastic material of the weft yarns and material of the films may be similar (page 6, lines 6-27 and page 17, lines 32-37).

Regarding claim 9, Dana discloses that two tapes may be overlapped (Figure 3 and page 13, lines 10-20).

Claim Rejections - 35 USC § 103

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,228,312 to Boyce as applied to claims 1-3 and 6-9 above, and further in view of USPN 4,578,293 to Lusk.

Boyce does not specifically mention a UV blocking agent, but Lusk discloses that in the thermoplastic pipe and liner art a UV stabilizer is conventionally added to the thermoplastic to increase the service life of the article (see entire document including column 1, lines 6-18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a UV stabilizer to the thermoplastic films of Boyce, because the UV stabilizer would increase the service life of the article.

9. Claims 1, 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,781,958 to Gilbert in view of USPN 5,014,755 to Bompard et al. (hereinafter referred to as Bompard).

Regarding claims 1, 3 and 8, Gilbert discloses a reinforcing tape that includes a ply of reinforcement yarns which tape included two thermoplastic films each placed on a respective different side of the ply of reinforcement yarns (see entire document including column 2, lines

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24-50 and column 4, lines 13-53). Gilbert discloses that the tape is flexible enough to be wound on a roll (column 2, lines 51-65) and that the yarns provide reinforcement (column 2, lines 39-65).

Gilbert discloses that the reinforcement material may be any desired material that provides the desired tensile strength (column 4, lines 3-23), but Gilbert does not specifically mention a woven reinforcement material. Bompard discloses that it is known in the thermoplastic reinforced laminate art that a woven reinforcement material comprising carbon-, glass- or aramid-based fibers may be used to form a reinforcement layer with improved mechanical properties (see entire document including column 1, lines 50-61 and column 3, lines 1-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the reinforcement material from any suitable known reinforcement material and structure, such as a woven reinforcement material comprising glass-, carbon- or aramid-based fibers, as taught by Bompard, because the reinforcement material exhibits improved mechanical properties and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability.

Regarding claim 3, Gilbert discloses that the two thermoplastic films are bonded together along the edges of the tape (column 2, lines 24-38).

Regarding claim 8, Gilbert discloses that the thermoplastic films are separate from the yarns and avoid penetrating into the ply of high-tenacity yarns (Figure 2).

10. Claims 2 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,781,958 to Gilbert in view of USPN 5,014,755 to Bompard as applied to claims 1, 3 and 8 above, and further in view of USPN 5,547,536 to Park.

Gilbert discloses that the thermoplastic films may be laid down by a number of processes (column 6, lines 9-27), but Gilbert does not specifically mention bonding the edges of the thermoplastic films such that each thermoplastic film adheres to a respective different side of the ply. Park discloses that two thermoplastic films may be adhered together by applying heat and pressure to both films (see entire document including Figures 1 and 3 and column 4, lines 10-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to adhere the thermoplastic films by any suitable method, such as by applying heat and pressure to both films, as taught by Park, because it is within the general skill of a worker in the art to select a known method on the basis of its suitability.

Regarding claim 6, Bompard discloses that the longitudinal yarns may be bound by at least partly thermoplastic weft yarns (see the paragraph bridging columns 4 and 5).

Regarding claim 7, Gilbert discloses that similar materials may be used in the reinforcement fiber layer and the thermoplastic films (column 4, lines 13-53).

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,781,958 to Gilbert in view of USPN 5,014,755 to Bompard as applied to claims 1, 3 and 8 above, and further in view of USPN 3,830,067 to Osborn et al. (hereinafter referred to as Osborn).

Gilbert discloses that the thermoplastic films may be laid down by a number of processes (column 6, lines 9-27), but Gilbert does not specifically mention bonding the edges of the thermoplastic films such that the reinforcing material is capable of sliding inside the sheath formed by the thermoplastic films. Osborn discloses that edges of two thermoplastic films may be sealed by passing the edges between heated rollers or by using a suitable solvent that softens the edges to permit bonding (see entire document including column 5, lines 46-56). It would

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have been obvious to one having ordinary skill in the art at the time the invention was made to seal the edges by any suitable method, such as by passing the edges between heated rollers or by using a suitable solvent that softens the edges to permit bonding, as taught by Osborn, because it is within the general skill of a worker in the art to select a known method on the basis of its suitability.

Response to Arguments

12. Applicant's arguments filed 9/27/2005 have been fully considered but they are not persuasive.

The applicant asserts that Boyce fails to teach or suggest glass-based high tenacity yarns bound together by weft yarns, the tape being flexible, and/or the yarns being configured to reinforce an object. The examiner respectfully disagrees. Boyce discloses a reinforcing tape that includes a ply of longitudinal glass-based high-tenacity yarns bound together by weft yarns which tape includes two thermoplastic films each placed on a respective different side of the ply of high-tenacity yarns wherein the tape is flexible and the yarns provide reinforcement (see entire document including column 4, lines 27-45, column 5, line 46 through column 6, line 3, and column 6, lines 64-66). Boyce specifically discloses that the structure may be in the form of a tape (column 6, lines 35-40 and 64-66). Boyce specifically discloses that yarns may be glass-based (column 4, lines 27-45). Boyce specifically discloses that the yarns may be in a woven structure (warp yarns bound by weft yarns) (column 4, lines 27-36). Boyce specifically discloses that the tape may include two thermoplastic films placed on respective different sides of the ply

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of yarns (column 6, lines 1-3). Boyce specifically discloses that the tape is flexible (column 6, lines 4-9) and that the yarns provide reinforcement (column 4, lines 37-64).

The applicant asserts that Boyce does not teach or suggest a tape that is wound around a structure. The examiner contends that the applicant did not claim that the tape is wound around a structure, rather, the applicant claimed that the tape is flexible to allow the tape to be wound around an object to be reinforced. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since Boyce specifically discloses that the tape is flexible, it appears that the tape is clearly capable of performing the claimed intended use. The applicant has failed to show, or attempt to show, that the tape disclosed by Boyce is incapable of the claimed intended use.

The applicant asserts that Dana fails to teach or suggest high tenacity yarns with thermoplastic films on respective different sides of the ply of yarns. The examiner respectfully disagrees. Dana discloses a reinforcing tape that includes a ply of longitudinal aramid-, carbon- or glass-based yarns bound together by weft yarns which tape includes two thermoplastic films each placed on a respective different side of the ply of high-tenacity yarns (see entire document including page 2, lines 32-35, page 6, lines 6-23, page 8, lines 28-30, page 17, lines 16-34 and Figures 2-3). Dana specifically discloses that the structure may be in the form of a tape (Figure 2). Dana specifically discloses that yarns may be glass, carbon, or aramid based (page 6, lines 6-27). Dana specifically discloses that the yarns may be in a woven structure (warp yarns bound by weft yarns) (Figure 2 and 3, and page 13, lines 10-20). Dana specifically discloses that the

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tape may include two thermoplastic films placed on respective different sides of the ply of yarns (Figures 2 and 3, and page 17, lines 32-37).

The applicant asserts that Dana fails to teach or suggest a flexible tape. The examiner respectfully disagrees. Dana does not appear to specifically disclose that the tape is flexible, but considering that tape is identical to the claimed tape in terms of materials (aramid-, glass- or carbon-based high-tenacity yarns and thermoplastic films) and construction (woven fabric sandwiched between the films), it appears that the tape is inherently flexible.

The applicant asserts that Gilbert does not teach or suggest a flexible tape because Gilbert discloses that the structure may be flat without a tendency to curl or twist (column 2, lines 51-65). The examiner respectfully disagrees. Gilbert discloses that the tape comes off a roll before it becomes flat (column 2, lines 51-65). Therefore, Gilbert teaches that the tape is flexible enough to allow the tape to be wound around an object to be reinforced. In addition, Gilbert specifically discloses that the reinforcing yarns are flexible (column 4, lines 13-23).

Regarding claim 4, applicant asserts that Osborn fails to teach or suggest a ply of reinforcing tape included within a cavity. Applicant's argument is moot because Osborn is not relied upon to disclose a ply of reinforcing tape included within a cavity. Rather, Osborn is simply relied upon to disclose that it is known in the art to seal the edges of two thermoplastic films by passing the edges between heated rollers or by using a suitable solvent that softens the edges to permit bonding (see entire document including column 5, lines 46-56).

Conclusion

13. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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atp

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